

NX-148E-RF LCD Touchpad with Receiver Installation Instructions

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Product summary

The NX-148E-RF Touchpad with Receiver combines touchpad and receiver capabilities into a single device for use with all NetworX control panels except CF (commercial fire) panels.

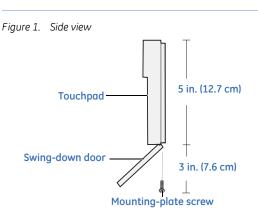
- **Note:** When using this touchpad with an NX-8E, NX-8V2, NX-6V2, or NX-4V2 and downloading via modem, make sure the control panel version is equal to or greater than the following versions:
 - NX-8E 17.00
 - NX-8V2 1.04
 - NX-6V2 1.05
 - NX-4V2 1.04

Make sure you are using DL900 version 2.11 or greater software.

Installation guidelines

Use the following installation guidelines:

- Mount transmitters as close as possible to the touchpad. For best results, we recommend the distance between the transmitter and the touchpad be less than 100 ft. (30.5 m).
- Mount the touchpads in an environmentally controlled area with a temperature range from 32 to 120° F (0° to 49°C).
- When mounting the touchpad, allow at least 3 in. (7.6 cm) below the touchpad for the swing-down door (*Figure 1*).



• Use *Table 1* on page 2 to determine the maximum wire lengths allowed between the touchpad and the panel.

Tools and supplies needed

- Pencil
- · Phillips screwdriver
- Drill
- 15/64 in. drill bit
- Mounting screws (provided)
- Wall anchors (optional)
- 4-conductor, 22, 18, 16, 14 or 12-gauge wire (see *Table 1* on page 2)

Installation

To install the touchpad, do the following:

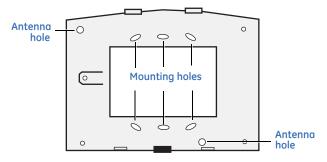
1. Remove the mounting-plate screw (*Figure 1*) from the bottom of the touchpad and lift off the mounting plate.



You must be free of static electricity before handling circuit boards. Wear a grounding strap or touch a bare metal surface to discharge static electricity.

2. At the mounting location, use the mounting plate to mark the location for the antenna and mounting holes (*Figure 2*).

Figure 2. Antenna and mounting holes



- 3. Drill 15/64 in. holes at the marked antenna hole locations.
- WARNING:

 Make sure the mounting location is free of electrical wires. Contact with electrical wires while drilling the antenna openings could result in serious injury or death.

- Mount the mounting plate to the wall with the screws provided. Use wall anchors if needed.
- 5. Remove power (if applied) from the control panel.



To avoid possible equipment damage or personal injury, remove power from the control panel before making any wiring connections to the module. 6. Use 22-gauge or larger wire to connect the data, common, and positive terminals on the touchpad (*Figure 3*) to the data, common, and power terminals on the control panel. See *Table 1* for wiring guidelines.

Figure 3. Touchpad wiring terminals



Table 1. Wiring guidelines

Length	Wire gauge
250 ft. (76 m)	22
500 ft. (152 m)	22
1000 ft. (304 m)	20
1500 ft. (456 m)	18
2000 ft. (610 m)	16
2500 ft. (760 m)	16

- 7. Run the antenna wires through the antenna holes in the mounting plate (*Figure 2* on page 1) and into the wall.
- 8. To mount the touchpad to the mounting plate, place the top of the touchpad on the clips of the mounting plate and push the touchpad down into place.
- 9. Replace the mounting plate screw on the bottom of the touchpad (*Figure 1* on page 1).
- 10. Apply power to the control panel.

Transmitter programming

This section describes how to program the wireless transmitters used with the touchpad.

Programming guidelines

Use the following programming guidelines:

- NX-4 and NX-6 control panels can have receivers added with zones that overlap those contained in the control panel. No hardwire expanders can be used.
- NX-8 control panels can have expansion zones (hardwire or wireless) set the same as those contained in the control panel. To do this, you must disable the onboard control panel zones in panel location 37, segment 5, option 3. All zone expansion modules must not overlap any blocks of 8 zones.
- All other control panels can have wireless zones added to any zone. If a hardwire input (on either the control panel or hardwire expander) is also present on the same zone as an enabled wireless zone, the wireless transmitter takes priority.

Program settings

When programming wireless transmitters into the touchpad, there are various options and partitions you can set for each transmitter. These settings appear in segments of each programming location.

Use *Table 11* on page 10 to record zone assignments and settings. Be sure to circle the module type in the location column to help identify where each zone resides.

RM. receiver module

HE. hardwire expander

P. panel

This gives you all the programming information in one place and facilitates the programming process.

Zone locations 401 to 592

Zone locations 401 to 592 are not numbered in *Table 11* on page 10 since these locations vary depending on location 594, *Receiver Zone Bank Setting*.

For example, if location 594 is set to 3, the first available location is 425. The total number of available locations is dependent on the zone limits for both the panel and receiver.

Note: The default settings shown for Segments 1 and 2 in the first zone location apply to all zone locations.

Set touchpad number and partition (94)

To set the touchpad number and partition, do the following:

- 1. Enter * 94.
- 2. Enter your program code.
- 3. Enter the touchpad number (see *Table 2*) and press *.
- 4. Enter the partition number and press *.
- 5. To exit, press #.

		Partition						
Touchpad	1	2	3	4	5	6	7	8
1	192	193	194	195	196	197	198	199
2	200	201	202	203	204	205	206	207
3	208	209	210	211	212	213	214	215
4	216	217	218	219	220	221	222	223
5	224	225	226	227	228	229	230	231
6	232	233	234	235	236	237	238	239
7	240	241	242	243	244	245	246	247
8	248	249	250	251	252	253	254	255

Add transmitters

To add transmitters to the touchpad receiver, do the following:

- 1. Enter *** 8** at the touchpad.
- 2. Enter your program code (factory default is 9 7 1 3).
- 3. Enter the device number (Table 2) and press #.
- 4. To load factory defaults and clear unwanted information in memory for new installations, enter **910**#.
- 5. To determine the starting zone number for the specific touchpad receiver on new installations, set the receiver zone bank (Location 594) The bank setting is based on the zone capabilities of both the receiver and the panel and must be set before you add (learn) transmitters.
- 6. Enter 400 # to enter the sensor (transmitter) learning location.
- 7. Enter a zone number (1 to 192) and press *. Three beeps from the touchpad indicates an entry error. This occurs if you enter a transmitter number that is not within the receiver's zone block or if you try to learn a transmitter that is already learned into the receiver.
 - Note: If you change your mind about your entry, enter 400 # 0* to terminate programming and start over from step 6.

8. Trip the desired transmitter (within 250 seconds) as described in *Table 3*. Listen for the *ding dong* for confirmation.

Table 3. Tripping transmitters

Transmitter	Action
Door/window, shock, glass guard, freeze, UFT	Activate tamper switch by removing cover.
Door/window with external contact	Activate tamper switch by removing cover. Feature 4–Input option 1, must be on.
Recessed door/window	Activate tamper switch by removing circuit board until tamper switch is exposed.
Micro door/window and Micro recessed door/window	Refer to the installation instructions for the specific sensor for activation information.
SlimLine door/window	Remove cover, then press the button on the top of the sensor, or activate the tamper switch by removing the cover.
PIR	Refer to the installation instructions for the specific sensor for activation information.
Smoke detector without tamper switch	Press and hold the test button.
Smoke detector with tamper switch	Trip the tamper switch. Feature 4—Input option 1, must be on.
Heat detector	Press, then release the tamper switch.
Single button panic	Press and hold the button.
Dual button panic	Press and hold both buttons together.
Keyfobs	Press and hold the arm and disarm buttons together.
Repeater	Press, then release the tamper switch.

9. To program remaining transmitters, repeat steps 6 to 8.

10. To exit program mode, press **EXIT EXIT**.

Transmitter options

Door/window transmitter settings

To set features 4 (Input option 1) and 5 (Input option 2) for door/ window transmitters, do the following:

- To disable the transmitter's internal reed switches, turn on feature 4.
- Turn on feature 5 for a normally closed (N/C) external contact; turn off feature 5 for a normally open (N/O) external contact.

Wireless smoke detector settings

To set feature 4 (Input option 1) for wireless smoke detectors, do the following:

- For wireless smoke detectors with tamper switches, turn feature 4 on to enable the tamper feature.
- For wireless smoke detectors without tamper switches, turn feature 4 off (disabled).
- **Note:** Feature 4 must be off (disabled) when using wireless smoke detectors without tamper switches.

4-button keyfob settings

Keyfob functions 1 and 2 can be used to control relays, outputs, or X10 devices. See Locations 593 and 594 in *Table 11* on page 10.

To set features 4 (Input option 1) and 5 (Input option 2) for 4button keyfobs, do the following:

- To change the Light button to keyfob function 1, turn on feature 4.
- To change the Star button to keyfob function 2, turn on feature 5.

Partition settings for keyfobs

To program partition settings, do the following:

- 1. Enter * 8 at the touchpad.
- 2. Enter your program code (factory default is 9713).
- 3. Enter the device number and press # (see *Table 2* on page 3).
- 4. Enter the location number and press #. For example, enter **401** # to enter location 401, segment 1. Press * for segment 2.
- 5. Press the touchpad button that corresponds to the keyfob partition number you want to change. The number will be displayed for the keyfob partitions. Press the partition number to toggle the partition on and off.
- 6. To continue programming keyfob transmitter partition settings, repeat steps 4 to 8.
- 7. To exit program mode, press EXIT EXIT.

Transmitter supervision windows

To change the transmitter supervision windows, do the following:

- 1. Enter * 8 at the touchpad.
- 2. Enter your program code (factory default is 9713).
- 3. Enter the device number and press # (see *Table 2* on page 3).
- 4. Enter **595** # to enter location 595, segment 1.

Enter the new normal supervision time (0 to 255) and press
 If you enter 0, it will set the normal supervision time to 256 hours.

CAUTION:

Do not set the normal or fire supervision windows to 1 hour. This causes false trouble reports from all learned wireless transmitters.

- 6. Enter the new fire supervision time (0 to 255) and press *. If you enter 0, it will set the fire supervision window to 256 hours.
- 7. Enter the new short supervision time (up to 30 minutes). The short supervision setting prevents arming if a transmitter has not checked in within the set time. This applies only to specific countries outside the U.S. Check the control panel installation manual to determine if this setting is available. Enter a number higher than 30 (the default value is 40) to disable the feature.
- 8. Press * to save any changes. The panel is now waiting for the next location entry.
 - **Note:** If you press # it does not save changes to the current segment, but it does save changes made in previous segments.
- 9. To exit program mode, press EXIT EXIT.

Delete transmitters

This procedure makes the receiver ignore a transmitter but does not remove transmitter identification from the receiver's memory. The transmitter can be reactivated later or a new one can be learned into the zone.

To delete a transmitter, do the following:

- 1. Enter * 8 at the touchpad.
- 2. Enter your program code (factory default is 9 7 1 3).
- 3. Enter the device number and press # (see *Table 2* on page 3).
- 4. Enter the zone location and press #. For example, enter **407** # to delete zone 7.
- 5. To change transmitter feature 1 (*Transmitter enabled*), enter **1** and press *. The 1 turns off to indicate the feature change.
- To delete additional transmitters, repeat steps 3 to 5.
 Note: To delete all transmitters and load factory defaults, enter 910 #.
- 7. To exit program mode, press **EXIT EXIT**.

Transmitter testing and troubleshooting

Test all transmitters to verify correct programming and operation. Location 600 gives the number of rounds of the last transmitter learned in. A minimum of 7 to 8 transmissions is required for all transmitters. If the number of transmissions is less than the minimum required, supervisories can occur.

Rotate the mounting position (90, 180, or 270 degrees) of any transmitter that consistently tests below margin and retest. If rotating the transmitter mounting position does not improve signal reception or is not practical, move the transmitter to different locations near the preferred mounting area. Test each location until the transmitter consistently tests good, then mount the transmitter.

Touchpad programming

To program the touchpad, do the following:

- 1. Press * and enter the function number to select the desired function. *Table 4* lists the programming information for each function.
 - Note: Press * repeatedly to scroll through available functions.

Table 4. Touchpad functions

Function Number	Function
0	Adjust touchpad tone
1	Temp master mode
•	View zone status
2	Service menu
3	View alarm memory
44	Test function
45	Display function
46	Light control for X10
47	House codes for X10
49	Change languages
5	Change user codes
6	Assign user authority
7	Reset function
90	Log review
91	Adjust view/brightness of LCD
92	Program custom messages
93	Set touchpad options
94	Set touchpad number and partition
95	Set elapsed time (in minutes) since last autotest
97	Set system time and date
98	Call back for download
99	Seize phone line for download
Chime	Walk test
Exit	Silent exit

2. To exit the function menu, press #.

Adjust touchpad tone (0)

To raise or lower the tone on the touchpad, do the following:

- 1. Enter * 0.
- 2. Press \blacktriangle or \checkmark to raise or lower the tone. The touchpad will emit a continuous tone, allowing you to hear the selection.
- 3. To save the tone and exit, press #.

Temporary master mode (1)

The master mode of operation allows you to temporarily access any partition (providing your code is authorized) within the system and to do functions in other partitions. The keypad will revert back to its assigned partition 60 seconds after a key press, or 10 seconds without a keypress. To set a temporary master mode, do the following:

- 1. Enter * 1.
- 2. Enter your user code.
- 3. To exit, press #.

View zone status (A)

To view zone status, do the following:

- Press * ▲.
- 2. Press ▲ or ▼ to scroll through the list. The list shows all zones in sequential order by zone number.
- 3. To exit, press #.

Service menu (2)

A *Service Required* message will display periodically if the system requires service. To access the service menu, do the following:

- 1. Enter * 2 to display one or more of the fault messages in *Table 9* on page 8.
- 2. Press \blacktriangle or \checkmark to scroll through the messages.
- 3. To exit the service messages, press # #.

View alarm memory (3)

To view alarm memory, do the following:

- 1. Enter * 3.
- 2. Press \blacktriangle or \checkmark to display the alarm memory list in sequential order by zone number.
- 3. To exit, press #.

Test function (44)

If programmed, the test function will do a battery test, communicator test, and/or a siren test. No alarms will be sent. To test the system, do the following:

- 1. Enter * 44.
- 2. To exit, press #.

Display test function (45)

To test display functions, do the following:

- 1. Enter * **45**. All display pixels and LED indicators will flash, but no alarms will be sent.
- 2. To exit, press #.

Light control for X10 (46)

To control up to ten X10 devices from each touchpad (when used with an X10 device such as an NX-507E, NX-508E, NX-534E or NX-540E), do the following:

- 1. Enter * **46**. The display prompts you to *Select Light Number* 0-9.
- 2. Enter the X10 device number you want to control.
- 3. Press \blacktriangle or \checkmark to turn the selected device on or off.
- 4. Repeat steps 2 and 3 until all devices have been programmed.
- 5. To exit, press #.

Unit and house codes for X10 (47)

To program the specific X10 unit and house codes for the X10 devices for this touchpad (when used with an X10 output device such as an NX-507E, NX-508E, NX-534E or NX-540E), do the following:

- 1. Enter * **47**.
- 2. Enter your program code.
 - Note: Use * key to select light number.

3. Enter the X10 unit number (see *Table 5*) and press *.

```
Table 5.X10 module numbers and unit numbers
```

X10 Module number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit number	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

4. Enter the X10 house code (see *Table 6*) and press *.

Table 6. X10 house codes

0 = A	4 = E	8 = I	12 = M
1 = B	5 = F	9 = J	13 = N
2 = C	6 = G	10 = K	14 = O
3 = D	7 = H	11 = L	15 = P

5. To exit, press #.

Change languages (49)

This function allows you to toggle between the two languages programmed in your touchpad. To change languages, do the following:

- 1. Enter * **49**. The touchpad toggles to the second language.
- 2. Enter * **49**. The touchpad toggles to the first language.
- 3. To exit, press #.

Change user codes (5)

For partitioned systems, to change the user code of another person you must have access to all or more partitions than the user being changed. To change the user code, do the following:

- 1. Enter * 5.
- 2. Enter your master code.
- 3. Enter the user number you want to change.
- 4. Enter the new user code.
- 5. To exit, press #.

Assign user authority (6)

To assign user authority levels, you must have authority over the the assigned partitions. To assign user authority, do the following:

- 1. Enter * 6.
- 2. Enter your master code.
- 3. Enter the user number.
- 4. Use keys **1** (yes) and **0** (no) to assign authorities when prompted, or press * to move to the next prompt.
- 5. Assign the partitions for the user.
- 6. To return to step 3 and program another user code, press *.
- 7. To exit, press #.
- Note: Retain at least one code with access rights to all partitions to allow adding future users.

Reset function (7)

The system must be disarmed to reset the smoke detectors, zone troubles, and zone tampers. To reset, do the following:

- 1. Enter * 7.
- 2. To exit, press #.
- Note: If the keypad begins beeping, the reset didn't execute properly. Enter your code to silence the touchpad. Wait a few minutes and repeat the reset.

Log review (90)

The control panel has an event log of at least the last 185 events along with the date, time, and partition where the event occurred. To review the log, do the following:

- 1. Enter * 90.
- 2. Enter your program or master code.
- 3. Press ▼ to view events from newest to oldest, or press ▲ to view events from oldest to newest.
- 4. To exit, press #.

The following screen sample shows an opening in Partition 3 on September 25th at 5:57 pm by user 75. The * indicates that this event is not programmed to be reported to the central monitoring station.

Open		75
9/25	17:57	P3*

Table 10 on page 9 lists some of the possible event log messages.

Adjust view/brightness of LCD (91)

To adjust the view and brightness of the LCD display, do the following:

- 1. Enter * 91.
- 2. Enter your master code.
- 3. Press \blacktriangle or \lor to raise or lower the view angle and press * to save the selection.
- 4. Press \blacktriangle or \checkmark to brighten or dim the LCD and press * to save the selection.
- 5. To exit, press #.

Program custom messages (92)

When you program custom messages:

- If an NX-148 (non-E) is installed on the same system, it must be used to program the text. All messages are transferred to other touchpads when you exit this mode.
- Use the * 94 (*Set touchpad number and partition*) function to set the touchpad numbers prior to programming custom messages.
- If a touchpad is added after messages are programmed, you need to either program all messages in it, or enter custom message programming on an existing touchpad and press 1 #, #, #, EXIT.
- Refer to * 93 (*Set touchpad options*) to prevent overwriting the custom message.

To program custom messages, do the following:

- 1. Enter * 92.
- 2. Enter your program code.
- 3. The LCD will prompt you to enter the message number followed by #. Zones 1 through 192 custom messages are message numbers 1 to 192 respectively.

Message 193 = Custom message top line.

Message 194 = Custom message bottom line.

Message 195 = Shutdown message top line.

Message 196 = Shutdown message bottom line.

Enter the message number and press #. The display will show the zone number on the top line and a description on the bottom line. Refer to *Table 7* for information on editing character data.

4. Press **EXIT** to exit.

Table 7. Editing character data

Command	Action
*	Saves character or word. Moves cursor to the right.
CANCEL	Moves cursor to the left.
▲ or ◄	Scrolls through available characters. In library mode, scrolls through available words.
STAY	Inserts a black space.
CHIME	Deletes characters.
EXIT	Accesses the library page.
BYPASS	Makes the character flash. If you are in library mode, it will make the entire word flash.
#	Exits.

Set touchpad options (93)

To set touchpad options, do the following:

- 1. Press * 93.
- 2. Enter your program code.
- 3. Follow the instructions on the bottom line of the display to select the options you want (see *Table 8*). If you do not want to change an option, press * to advance to the next option.
- 4. To exit, press #.

Table 8. Touchpad options

Option	Touchpad features
1	Not used
2	Silent touchpad - Enables silent touchpad option. If enabled, only the entry/exit and sounder chime are silenced.
3	Ding dong chime - Enable the ding dong sound for chime.
4	5 second silence - Silences the pulsing touchpad sounder for 5 seconds when a key is pressed.
5	Armed zone info - Touchpad will display faulted or bypassed zone information when the system is armed.
6	Beeps on panics - Will sound a short beep when the keypress is accepted.
7	Disable service - Suppresses the Service message.
8	Master touchpad - Enables multi-partition mode.
9	Custom message - Enables custom message display.
10	Clock - Enables clock display.
11	Custom message lock - Prevents over-writing the custom message during touchpad copy.
12	Select an option - Programs special characteristics. 1 = Display Press * For Help 2 = Disable LED extinguish on this touchpad 3 = On if PIN should be hidden when programming 4 = On suppresses beeps when an RF Transmission is lost. 5-8 = Reserved (do not program)

Set elapsed time since the last autotest (95)

To set the elapsed time (in minutes) since the last autotest, do the following:

- 1. Enter * 95.
- 2. Enter your program code.
- 3. Enter the elapsed time in minutes using three digits. For example, enter 005 for 5 minutes.
- 4. To exit, press #.

Set system time and date (97)

To set the system time and date, do the following:

- 1. Enter * 97.
- 2. Enter your program code.
- 3. Press \blacktriangle or \checkmark to scroll for the proper hour.
- 4. Press * to advance to the next selection (minutes).
- 5. Repeat steps 3 and 4 until the time and date are set.
- 6. To exit, press #.

Call back for download (98)

To cause the control to do a call back for download (while the system is disarmed), enter * **98**.

Seize phone line for download (99)

To cause the control to seize the phone line for a download (while the system is disarmed), enter *** 99**.

Walk test (CHIME)

The walk test allows you to walk through to test the zones (while the system is disarmed). To do a walk test, do the following:

- 1. Enter * CHIME.
- 2. Enter your user code.
- 3. Walk through the zones. Each time a zone is faulted, it will be displayed on the touchpad and a chime will sound.
- 4. The walk test mode will exit after 15 minutes, or you can enter your user code to exit at anytime.

Silent exit (EXIT)

To silence the exit beeps during exit delay (while the system is disarmed), do the following:

- 1. Enter * EXIT.
- 2. Enter your user code.
- 3. To exit, press #.

Reference tables

Table 9. Service menu messages

	5
Message	Explanation
Control over current	A short circuit of a power supply has occurred.
Control siren trouble	Open circuit on the bell or siren circuit.
Control box tamper	(Optional) The box tamper circuit has activated.
Control phone trouble	The phone line connected to the control is not operating properly.
Control fail to comm.	The control made an unsuccessful attempt to communicate a message to the central station.
Control ground fault	A short to ground has been detected on a control circuit.
Control loss of time	Your system has lost total power and needs the clock reset.
Control power trouble	The main power to the system is off.
Control low battery	The standby battery is low.
Expansion aux comm fail	A auxiliary reporting device (i.e. NX-580E, NX- 582E, etc.) has failed to communicate.
Expansion over current	A short circuit of an expansion devices power supply has occurred.
Expansion power trouble	The main power to an expansion power supply is off.
Expansion low battery	An expansion power supply has a low battery.
Expansion box tamper	A box containing an expansion device has been opened.
Expansion RF jammed	A radio receiver is being jammed.
Expansion trouble	An expansion device or touchpad is not reporting to the control panel.
Expansion siren trouble	An expansion device has detected trouble on the bell or siren circuit.
Zone tamper, press *	A zone is tampered. Press * to identify the tampered zone.
Zone low battery, press *	A wireless device has a low battery. Press * to identify the zone.
Zone lost, press *	A wireless or multiplexed zone device is not reporting to the control. Press * to identify the zone.
Zone trouble, press *	A zone is experiencing trouble. Press * to iden- tify the zone.

Table 10. Log messages (continued)

Table 10. Log messages

Display	Description
TXlobat	Transmitter low battery
ZN Lost	Zone lost - A wireless multiplexed zone device is not reporting to the control.
Duress	The control has been armed or disarmed with a Duress code.
Man Fire	Manual fire - Touchpad Fire has been activated.
Aux 2	Auxiliary 2 - Touchpad Medical has been activated.
Panic	Touchpad Panic has been activated.
KP Tamper	Touchpad Tamper - The touchpad tamper has been activated.
BoxTamp	Box Tamper - The box tamper circuit has been activated.
AC Fail	AC failure has been detected.
OverCur	Over current - A short circuit of a power supply has occurred.
Srn Tamp	Siren tamper - A siren or speaker tamper has been detected.
Tel Flt	Telephone fault - A telephone fault or tamper has been detected.
Exp Trb	Expansion trouble - An expansion device or touchpad is not reporting to the control.
Log Full	The event log is full.
Open	Reports, user number, date, time and partition of opening.
Close	Reports, user number, date, time and partition of closing.
Exit Err	Exit error - Entry/exit zone was faulted when the exit delay expired.
Rec Close	Recent close - An alarm occurred within 5 minutes of the control being armed.
Autotest	Automatic test - Sending a communicator test at a specified interval.
Start Prog	Start programming - Local Programming has started.
End Prog	End programming -Local programming has ended.
Start Dnld	Start download - Download session has started.
End Dnld	End download - Download session has ended.
Cancel	Cancel was initiated within 5 minutes of an alarm.
Gnd Flt	Ground fault - A short to ground has been detected.
Man Test	Manual test - Bell and/or communicator test while system is disarmed.
Re-exit	The exit delay has been restarted without disarming the system.
Output Trip	A trip has occurred on an expander auxiliary output.
Data Lost	Communication of a signal has failed (log only event).

Display	Description
Walk-test	A zone Walk Test mode has been activated.
End Test	Test has ended.
Cross-Trip	The first zone of a cross zone has been tripped (log event only).
Expansion Event	An expansion module has created an unidentified event.
Partial Arm	Reports a closing in stay mode.
Listen In	A listen-in function has been activated.
Service Start	Technician is on site.
Service End	Technician is off site.
Code Entry	A code has been entered.
First Open	Reports when the first partition is disarmed.
Last Close	Reports when the last partition is armed.
Sprnklr	Sprinkler - Instant sprinkler supervisory report.
Clock Set	Clock has been reset.
RF Jammed	A wireless expansion module is jammed.
CleanMe	A smoke detector requires cleaning.

Table 11. Module programming settings

Location	Segment 1	Segment 2
400 (Transmitter to be programmed)	None	None
Zone Assigned to module # RM HE P	 1 - Enable sensor (default = off) 2 - Supervised (default = on) 3 - Fire supervision (default = off) 4 - Input option 1 (default = off) 5 - Input option 2 (default = off) 6 - 8 Not used 	 Partition 1 keyfob (default = on) Partition 2 keyfob (default = off) Partition 3 keyfob (default = off) Partition 4 keyfob (default = off) Partition 5 keyfob (default = off) Partition 6 keyfob (default = off) Partition 7 keyfob (default = off) Partition 7 keyfob (default = off) Partition 8 keyfob (default = off)
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 I - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Table 11. Module programming settings (continued)

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 I - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Table 11. Module programming settings (continued)

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Table 11. Module programming settings (continued)

Location	Segment 1	Segment 2
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 3 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 I - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone Assigned to module # RM HE P	 1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 8 Not used 	 Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Location	Segment 1	Segment 2
593 Receiver Options (all defaults off)	 1 - Enable jam detect 2 - Enable auto advance to next zone number 3 - Keyfob user ID (off all keyfobs report as user 99; on = keyfob reports as learned zone #) 4-5 Not used 6 - keyfob disarm only during entry or partial alarm 7-8 Not used 	None
594 Receiver Zone Bank Setting (Default = 0—set this before learning any sensors. See step 5 under Enrolling wireless sensors)	Starting zone numbers by bank setting: $0 = 1$ $1 = 9$ $2 = 17$ $3 = 25$ $4 = 33$ $5 = 41$ $6 = 49$ $7 = 57$ $8 = 65$ $9 = 73$ $10 = 81$ $11 = 89$ $12 = 97$ $13 = 105$ $14 = 113$ $15 = 121$ $16 = 129$ $17 = 137$ $18 = 145$ $19 = 153$ $20 = 161$ $21 = 169$ $22 = 177$ $23 = 185$	
595 Supervision Windows	Normalhours. (0 to 255 hours; default = 24 hours)	Firehours. (0 to 255 hours; default = 4 hours)
	Segment 3: Transmitter Check-in Winc (1 to 30 minutes, default = Do not change Segment 3 See step 7 under Transmit on page 4.	40 minutes, disabled) setting unless required.
600 Number of rounds received from last transmitter learned	See Transmitter testing and page 4.	d troubleshooting on

Specifications

Panel Compatibility	compatible with all NetworX control panels except CF (commercial fire) panels
Frequency	319.5 MHz
Wireless range	600 feet (183 m) open air
Power Requirements	12.0 VDC (provided by panel)
Current Draw	75 mA maximum
Operating Temperature	32° to 120°F (0° to 49°C)
Storage Temperature	-30° to 140°F (-34° to 60°C)
Humidity	90% relative, non-condensing
Dimensions	5 x 6 x 1 in. (12.7 x 15.2 x 2.5 cm)

Note: This product cannot be sold in the state of California if used to receive fire signals (per section 208-g, Chapter 1.5 *Construction Materials and Equipment Listings*, Title 19, California Code of Regulations (http://osfm.fire.ca.gov/pdf/ fireengineering/bml/t-19.pdf)).

FCC compliance

This device complies with Part 15 of FCC Rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Technical support Toll-free: 888.GESECURity (888.437.3287 in the US, including Alaska and Hawaii; Puerto Rico; Canada). Outside the toll-free area: Contact your local dealer.

www.gesecurity.com